ABSTRACT OF THE DISCLOSURE

Methods and apparatuses for performing vector table look-up using multiple look-up tables. In one aspect of the invention, a method for execution by a microprocessor in response to receiving a single instruction includes: receiving a plurality of numbers; partitioning look-up memory into a plurality of look-up tables; looking up simultaneously a plurality of elements from the plurality of look-up tables. Each of the plurality of elements is in one of the plurality of look-up tables and is pointed to by one of the plurality of numbers. The above operations are performed in response to the microprocessor receiving the single instruction.